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In the Claims

1.-28. Cancelled

- 1 ~~28~~. (New) A method for adaptive channel estimation comprising:
- providing a channel estimate;
 - determining an at least one channel condition;
 - determining an adapted channel estimate as a function of the channel estimate and the channel condition;
 - initializing at least one iteration variable;
 - calculating an error update as a function of the iteration variable; and
 - determining the adapted channel estimate as a function of the error update.

- 2 ~~30~~. (New) The method of claim ~~28~~¹ further comprising:
- providing a threshold value;
 - determining a dominant tap value as a function of the threshold value; and
 - determining the adapted channel estimate as a function of the dominant tap value.

- 3 ~~31~~. (New) A method for adaptive channel estimation comprising:
- providing a channel estimate;
 - determining an at least one channel condition;
 - determining an adapted channel estimate as a function of the channel estimate and the channel condition;
 - estimating a plurality of TOA values;
 - separating the TOA values as a function of a time separation value; and
 - determining the adapted channel estimate as a function of the separated TOA values.

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32. (New) A method for adaptive channel estimation comprising:
providing a channel estimate;
determining an at least one channel condition;
determining an adapted channel estimate as a function of the channel estimate and
the channel condition;
estimating a plurality of TOA values;
calculating a TOA gradient as a function of the TOA values; and
determining the adapted channel estimate as a function of the calculated TOA
gradient.

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33. (New) A system for adaptive channel estimation comprising:
means for providing a channel estimate;
means for determining an at least one channel condition;
means for determining an adapted channel estimate as a function of the channel
estimate and the channel condition;
means for initializing at least one iteration variable;
means for calculating an error update as a function of the iteration variable; and
means for determining the adapted channel estimate as a function of the error
update.

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34. (New) The system of claim 33 further comprising:
means for providing a threshold value;
means for determining a dominant tap value as a function of the threshold value;
and
means for determining the adapted channel estimate as a function of the dominant
tap value.

735. (New) A system for adaptive channel estimation comprising:

- means for providing a channel estimate;
- means for determining an at least one channel condition;
- means for determining an adapted channel estimate as a function of the channel estimate and the channel condition;
- means for estimating a plurality of TOA values;
- means for separating the TOA values as a function of a time separation value; and
- means for determining the adapted channel estimate as a function of the separated TOA values.

636. (New) A system for adaptive channel estimation comprising:

- means for providing a channel estimate;
 - means for determining an at least one channel condition;
 - means for determining an adapted channel estimate as a function of the channel estimate and the channel condition;
 - means for estimating a plurality of TOA values;
 - means for calculating a TOA gradient as a function of the TOA values; and
 - means for determining the adapted channel estimate as a function of the calculated TOA gradient.
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